

### **REMARKS**

Claims 43-161 are pending in the subject application of which claims 43-151 are withdrawn. Claims 152-161 have been rejected. Applicants have herein amended the specification to update the first paragraph and to correct typographical errors. Applicants have herein amended claims 152, 153, 156, 157, 160, and 161. Support for the amendments to the claims may be found in the specification of the subject application as originally filed. Specifically, support for the language “specifically” in claims 152 and 160 may be found, *inter alia*, in the specification of the subject application as originally filed at page 57, lines 7-10; and support for the language “specifically” in claims 156 and 161 may be found, *inter alia*, in the specification of the subject application as originally filed at page 58, lines 3-5. Applicants have also amended claims 152, 153, 156, 157, 160, and 161 to correct typographical errors. Applicants respectfully request entry of this Amendment. After entry of this Amendment, claims 43-161 will be pending of which claims 152-161 will be under examination, and claims 43-151 will be withdrawn. Applicants respectfully request reconsideration of the rejections set forth in the March 6, 2009 Office Action in view of the claims as presented herein and the following remarks.

#### **Claim Rejections under 35 U.S.C. § 112, First Paragraph – Written Description**

Claims 152-161 are rejected under 35 U.S.C. § 112, first paragraph, as allegedly containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The Examiner’s specific rationale is set forth on pages 2-4 of the March 6, 2009 Office Action.

According to the Examiner, claims 152-161 are directed to encompass all compounds that inhibit fungal or parasitic adenylyl cyclase, which only correspond in some undefined way (i.e. by function) to specifically instantly disclosed chemicals. According to the Examiner, the specification provides insufficient written description to support the genus encompassed by the claim.

In response, applicants respectfully traverse. Applicants respectfully submit that the claims presented herein comply with the written description requirement for at least the reasons set forth below.

Applicants respectfully submit that the subject application as originally filed supports

the claims as presented herein. Applicants submit that to satisfy the written description requirement, a patent specification must describe the claimed invention in sufficient detail that one skilled in the art can reasonably conclude that the inventor had possession of the claimed invention. *See, e.g. Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1563 (Fed. Cir. 1991). As long as a person of ordinary skill in the art would have understood the inventor to have been in possession of the claimed invention at the time of filing, even if not every nuance of the claims is explicitly described in the specification, the written description requirement is met. *In re Alton*, 76 F.3d 1168, 37 U.S.P.Q.2d 1578 (Fed. Cir. 1996). “*Ipsis verbis* disclosure is not necessary to satisfy the written description requirement.” *Fujikawa v. Wattanasin*, 93 F.3d 1559, 39 U.S.P.Q.2d 1895 (Fed. Cir. 1996). Moreover, as reiterated in *Pandrol USA, LP*, “the possession test requires assessment from the viewpoint of one of skill in the art .....; *Union Oil Co. of Cal. v. Atl. Richfield Co.*, 208 F3d 987, 997 (Fed. Cir. 2000) (“The written description requirement does not require the applicant ‘to describe exactly the subject matter claimed, [instead] the description must clearly allow persons of ordinary skill in the art to recognize that [the inventor] invented what is claimed.,”(citation omitted), (emphasis added)). *Pandrol USA, LP v. Airboss Railway Products, Inc.*, 424 F3d 1161 (Fed. Cir. 2005).

Applicants submit that one skilled in the art would understand that i) the chemical structure of “a compound” recited in claim 152, from which claims 153-155 depend, as presented herein is unimportant so long as the “compound” “specifically inhibits adenylyl cyclase of a parasite”; ii) the chemical structure of a “compound” recited in claim 160 as presented herein is unimportant so long as the “compound” “specifically inhibits adenylyl cyclase of the parasite”; iii) the chemical structure of “a compound” recited in claim 156, from which claims 157-159 depend, as presented herein is unimportant so long as the “compound” “specifically inhibits adenylyl cyclase of a fungal organism”; and iv) the chemical structure of a “compound” recited in claim 160 as presented herein is unimportant so long as the “compound” “specifically inhibits adenylyl cyclase of the fungal organism”. The subject application clearly describes the inhibition of the adenylyl cyclases as claimed as well as provides clear examples showing such inhibition. Therefore, applicants respectfully submit that the subject application as originally filed informs a skilled artisan that applicants were in possession of the claimed invention as a whole at the time the subject application was filed. Applicants respectfully submit that the claims as presented herein comply with the written description requirement. Accordingly, applicants respectfully request that the

Examiner reconsider and withdraw the rejection.

**Claim Rejections Under 35 U.S.C. § 112, Second Paragraph - Definiteness**

Claims 152-159 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly indefinite. The Examiner's specific rationale is set forth on page 5 of the March 6, 2009 Office Action.

According to the Examiner, claims 152 and 156, from which claims 153-155 and 157-159 depend, recite the limitations "the parasite" and "the fungal organism". According to the Examiner, there is insufficient antecedent basis for these limitations in the claims.

In response, applicants have amended claim 152, from which claims 153-155 depend, to recite the language "a parasite" and claim 156, from which claims 157-159 depend, to recite the language "a fungal organism". Applicants respectfully submit that claims 152-159 as presented herein are not indefinite. Accordingly, applicants respectfully request that the Examiner reconsider and withdraw the rejection.

**Claim Rejections Under 35 U.S.C. § 102(b) – Rosenthal**

Claims 152-155 and 160 are rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Rosenthal (Rosenthal, P.J. (1995) "*Plasmodium falciparum*: Effects of Proteinase Inhibitors on Globin Hydrolysis by Cultured Malaria Parasites" *Exp. Parasitol.* 80(2):272-81). The Examiner's specific rationale is set forth on page 6 of the March 6, 2009 Office Action.

According to the Examiner, Rosenthal teaches contacting human erythrocytes, infected with the parasite *P. falciparum*, with sodium dodecyl sulfate, a compound that denatures proteins, and therefore necessarily inhibits all proteins, including adenylyl cyclase of *P. falciparum*.

In response, applicants have amended claim 152, from which claims 153-155 depend, and claim 160 to recite the language "specifically inhibits". Applicants respectfully submit that claims 152-155 and 160 as presented herein are not anticipated by Rosenthal for at least the reasons that follow.

Applicants note that claim 152, from which claims 153-155 depend, as presented herein recites "contacting a eukaryotic cell with a compound that specifically inhibits adenylyl cyclase of a parasite" (emphasis added) and that claim 160 as presented herein recites "contacting a parasite with a compound that specifically inhibits adenylyl cyclase of

the parasite” (emphasis added). Applicants also note the Examiner’s assertion at page 5, lines 21-23, of the March 6, 2009 Office Action that Rosenthal discloses “contacting human erythrocytes, infected with the parasite *P. falciparum*, with sodium dodecyl sulfate, a compound that denatures proteins, and therefore necessarily inhibits all proteins . . .” (emphasis added). Applicants respectfully submit that Rosenthal does not disclose specific inhibition of the adenylyl cyclase. Therefore, applicants respectfully submit that Rosenthal does not anticipate claims 152-155 and 160 as presented herein. Accordingly, applicants respectfully request that the Examiner reconsider and withdraw this rejection.

**Claim Rejections Under 35 U.S.C. § 102(b) – Bailey et al.**

Claims 156-159 and 161 are rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Bailey et al. (Bailey, A., et al. (1995) “Adherence of *Candida albicans* to Human Buccal Epithelial Cells: Host-Induced Protein Synthesis and Signaling Events” *Infect. Immun.* 63(2):569-72. The Examiner’s specific rationale is set forth on page 6 of the March 6, 2009 Office Action.

According to the Examiner, Bailey et al. teaches contacting human buccal epithelial cells infected with the fungal organism *C. albicans* with sodium dodecyl sulfate, a compound that denatures proteins, and therefore necessarily inhibits all proteins, including adenylyl cyclase of *C. albicans*.

In response, applicants have amended claim 156, from which claims 157-159 depend, and claim 161 without prejudice or disclaimer. Applicants respectfully submit that claims 156-159 and 161 as presented herein are not anticipated by Bailey et al. for at least the reasons that follow.

Applicants note that claim 156, from which claims 157-159 depend, recites “contacting a eukaryotic cell with a compound that specifically inhibits adenylyl cyclase of a fungal organism” (emphasis added) and that claim 161 as presented herein recites “contacting a fungal organism with a compound that specifically inhibits adenylyl cyclase of the fungal organism” (emphasis added). Applicants also note the Examiner’s assertion at page 6, lines 6-8, of the March 6, 2009 Office Action that Bailey et al. discloses “contacting human buccal epithelial cells infected with the fungal organism *C. albicans* with sodium dodecyl sulfate, a compound that denatures proteins, and therefore necessarily inhibits all proteins . . .” (emphasis added). Applicants respectfully submit that Bailey et al. does not disclose specific inhibition of the adenylyl cyclase. Therefore, applicants respectfully submit that Bailey et al.

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does not anticipate claims 156-159 and 161 as presented herein. Accordingly, applicants respectfully request that the Examiner reconsider and withdraw this rejection.

If a telephone interview would be of assistance in expediting prosecution of the subject application, the Examiner is invited to contact the undersigned at the number provided below.

Respectfully submitted,  
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